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ABSTRACT

The Elementary and Secondary Education Act Title III Project described in this evaluation report was conducted in predominately rural Wilkes County, North Carolina. The project's major objective was to develop a program which would identify the learning problems of the students involved and to develop educational programs which would eliminate these problems. The experimental sample included approximately 500 children in grade levels 1 through 4, who were placed in special classes. Both objective and subjective measures were used; the subjective measures came from opinionnaires and questionnaires given to parents, pupils, teachers, and other school personnel and from observations by consultants; the objective methods consisted of the school unit's regular testing program, along with special standardized and individual tests. Major results of the evaluation were that (1) parents were satisfied with their child's attitude and progress, (2) teachers were in favor of the methodology used, (3) children involved demonstrated a positive attitude toward school, and (4) the Wilkes County Board of Education decided to continue the classes. (PS)

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EVALUATION
OF
WILKES COUNTY ESEA TITLE III PROJECT
1970-71

Identifying And Organizing
For
Individual Needs

Wilkes County Board of Education
Wilkesboro, North Carolina
August, 1971

RC006257

WILKES COUNTY ESEA TITLE III

WILKES COUNTY BOARD OF EDUCATION

WILKESBORO, NORTH CAROLINA

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Evaluation of Project Entitled

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for Individual Needs"

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Presented by

Edna S. Bivens, Project Director

August, 1971

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Evaluation Report

The information submitted in this report has been submitted in part in the project's evaluation that was completed and presented on September 30, 1970. Those parts referred to as being previously submitted deal with:

(1) The context of the Program

(2) Describing, analyzing and interpreting evidence of changes induced by the Program

(3) Describing the treatment provided by the Program

The major portion of this report is devoted to subjective and objective measures applied to the project for anticipated purposes.

Context of the Program

Community Characteristics

The district served by the ESEA Title III Project is a predominately rural area with a population of approximately 45,000. Wilkes County is located in the northwestern part of North Carolina. The county is somewhat agarian, but many people are employed in poultry processing, and furniture and textile factories. The percent of families presently on welfare is about 18%. The county-wide school dropout rate is approximately 40%. The county is faced with many of the same educational problems characteristic of rural county school systems. The main problems are due to a lack of financial support to adequately educate all children. The current expense budget does not provide many things that are needed and a lack of funds for supplementing teacher salaries and employing special area personnel has reduced the quality of education offered children. Beginning July 1, 1971, a 1% sales tax was adopted. The use of these funds should help to maintain the services provided through this project.

Neighborhood Characteristics

The neighborhoods served by this project are primarily rural, agricultural areas with most employment being in the areas of tobacco farming, poultry farming, furniture and textiles. The average family income is approximately $3800 and the unemployment rate about 3.3%. Welfare recipients are about 3.6% of the total. The ethnic composition of these neighborhoods is almost totally Caucasion with only a small number of Negroes. The total county percentage of Negroes is 6%, but the neighborhood served by the project is slightly less than that. Being rural, the population density is not high with approximately 60 persons per square mile. The neighborhoods described have about 2% of multi-family dwellings and about 50% of the housing is rented. The school dropout rate is somewhat less than the county rate of 40% in the neighborhoods served chiefly because these are elementary school areas. The neighborhoods served are somewhat in transition from an almost totally rural to more of a semi-rural setting with an increase in the per capita income in recent years.

Historical Background

The program has completed its third year of operation. The project originated through the thinking and planning of the teachers, administrators, and central staff personnel in an effort to improve the educational system in Wilkes County. The idea was discussed with many parents individually and presented to many community groups as well as given publicity through the local news media. The acceptance of the idea has been very good. Due to a decrease in funding the guidance-counselor/ social worker was eliminated from the program this year. Traphill School lost an interim teacher due to a decreased school enrollment.

The Treatment Provided The Program

Personnel

Administrative, supervisory, guidance, instructional and non-instructional personnel were added by the Title III program. Several regular staff members were assigned or assumed duties with the program on a part-time basis. A project director, a secretary/bookkeeper, four teachers, and eight teacher aides were employed during 1970-1971. All of those employed by the project as well as regular staff members involved have been committed to fulfilling the objective of the project as nearly as possible and the duties have varied according to the position held. Inservice training has been limited this budget period. However, special classroom consultants have helped teachers in the placement of children. The effectiveness of the program has been reduced by the lack of sufficient funds to adequately fulfill all the original planning for the project.

Supporting Services

The services of the additional instructional personnel and para-professionals enabled students to receive more individual help. Services of the school and state health program were available, as well as services by the speech and hearing teacher and ESEA Title I social services. All of these services were available to the experimental group with some para-professionals, health-social services being available to the control group. The need to identify special needs of children involved in the project were justifications for providing these supportive services.

Beginning February 1, the Title III Director, Mr. Roger Jackson, accepted a new position and since that time a regularly employed general supervisor in the system temporarily assumed the duties of the Title III Director. The director since February 1, 1971 has been Mrs. Edna S. Bivens.

Organization: Physical Arrangement

This year the experimental classes were located in four different elementary schools. The continuous progress program was located at Millers Creek and C. B. Eller Schools and the interim classes were located at Ronda-Clingman and Mountain View. Control classes for Millers Creek School were located at Mulberry Elementary School, and control classes for C. B. Eller were located at Ronda-Clingman School. Ronda-Clingman was paired with Roaring River, and Mountain View paired with Millers Creek. The aspects of school size and social economic status were the main features of the physical arrangements. Children in the interim classes were paired as nearly as possible as to achievement, mental ability, and age.

Organization: Grouping of Teachers

When the program was initiated, teachers were given an opportunity to study the proposed experimental program and make a decision as to whether they would like to participate. In the case of the continuous progress program, the teachers were asked to go with the majority. The teachers in the control group were those regularly employed by the schools. Due to pregnancy, retirement, illness, and transfer of husbands, there have been fifteen faculty changes since the initiation of the program. To some extent this has hampered the continuous progress of the project, but with one exception each replacement teacher has adjusted happily to the project.

Organization: Grouping of Pupils

Pupils were grouped prior to the project in a basic self-contained classroom. In the experimental program of the continuous progress experiment, children were grouped and re-grouped as needed according to their achievements and needs in the area of mathematics and language arts and were heterogeneously grouped for all other areas. The control group for this experiment was originally all self-contained classes, but this year these classes have been involved in a program similar to Title III. The interim groups were placed in a self-contained situation for instruction and most of the control students were originally this way also. Approx-

imately 485 students were originally in the experimentation with the same number in the control group. This year all schools have been involved in experimental grouping and modified forms of team teaching.

Major Program Objectives

The major objective of the program was to develop a program of identification of the learning problems of students involved and to develop educational programs to eliminate these problems. The program was originally built around the special needs of the pupil in the educational district and has continued to focus on this objective. Mr. Richard Culyer, Reading Specialist, Appalachian State University, served as consultant for the project during 1970-1971. He assisted teachers at the first of the year in determining the reading and arithmetic competency level of each child in the Title III Program. Language arts and arithmetic materials were provided for each child at his level of learning and each child has progressed sequentially at his own learning pace. Teachers have produced many teaching kits and other materials have been purchased.

Methodology: Pupil Activities

In both aspects of the program the activities of the pupils centered around working at a level of instruction that was commensurate with their ability. This included a diagnostic and prescriptive type approach with students progressing in a continuous pattern of instruction. The total development of the child was an overall objective but the focus was on developing competence in reading and the communication skills. All children in the project have participated in the major activities and have spent the total day in the setting; however, about one-half of each school day is devoted to the development of the communication skills.

Methodology: Teacher Activities

Teachers in the experimental schools spent more time than the control teachers in the diagnosis of student needs and planning a program that would meet individual

needs. The teacher was with the pupils the entire school day except when she was free for planning special activities. The teacher-pupil ratio was about 23-1 and the adult-pupil ratio was 18-1. Many provisions were made for individualizing instruction through individual help, prescribed materials, programmed materials, etc. Teachers were given much freedom in the methods they used in this project. Many teachers provided students with information concerning their progress through individual conferences. No attempt was made to see that the experimental or the control groups got the opposite of the other or the same. The factors mentioned previously in the report were the determining factors.

Instructional Equipment and Materials

Varied and many different materials were used by the experimental groups while the controls used a more limited number of materials and equipment. Many instructional materials have been developed for the program that provides for independent activities. These were initiated through the project's inservice program and were developed by the teachers involved. Materials and equipment that enabled a child to work independently and provided for individualizing the instructional program proved to be the most effective in reaching project objectives. The selection and development of materials was centered entirely around specific needs of children. Teachers in control schools were also involved in the development of teacher-made materials as they saw how effectively they could be used.

Parent-Community Involvement

Parents of children in the experimental groups were involved in the program through special meetings in each community to discuss the objectives and purposes of the project. Parents in the project schools were scheduled to have conferences with teachers 3 times yearly and part of this time was spent discussing what the project was trying to achieve. The social worker visited many homes to better acquaint parents with the program.

Describing, Analyzing and Interpreting Evidence

Description of Sample

The children and adults in the program were chosen on the basis of need, desire, and willingness to participate in an experimental approach. The experimental sample included all children in the project, approximately 500 this year, that fell into grade levels one through four. The children were about equally divided between boys and girls. Achievement scores which describe the experimental sample are available in this report.

Measuring Change

The measures used in this program are both objective and subjective. The subjective measures came from opinionnaires and questionnaires given to parents, pupils, teachers and other school personnel, and observations from consultants, The objective measures applied center around the use of the school unit's regular testing program with the addition of some special standardized and individual tests. The tests used for evaluative purposes were the Standard Achievement, the California Achievement, the Otis-Lennon Mental Maturity on a group basis and the Slosson, Raven, Peabody, Columbia and Stanford-Binet on an individual basis. Some of the same measures were applied to the control group, but not all of the above mentioned ones. However, only those that were given to both are used in analysis. The same measures were used in both the pre and post testing. The lapsed time between testing used in analysis is approximately one year.

Analyzing Data

The analysis of data is included in this report. Substantial gains were made in one interim class while the other showed little significant gain. Circumstances over which the school system had little control have been considered in the process of weighing the strengths and wealnesses of the project and measuring

accomplishments against declared goals. The interim class taught by a teacher with a Master's Degree and many successful years of teaching experience showed substantial gains while the one taught by a young teacher with a sub-standard certificate did not show such significant gains. The same result occurred in one of the groups in the contimuous progress experimental school. Where inexperienced teachers with sub-standard certificates were employed and there were teacher changes made during the school year, the gains made in achievement were not as satisfactory as desired. However, in terms of providing good training for young teachers rather than in terms of comparing accomplishments with that of experienced teachers doing the same type job in other schools, it is subjectively believed that gains to the teaching profession have been significant.

As shown in this report, several comparisons were made of experimental and control groups. Since the initiation of the Title III program the schools from which control groups were selected have also initiated programs of instruction similar to those first introduced by this Title III Project. Mulberry School, as an experimental school for the Appalachian Training Complex, has had a Readiness and Kindergarten Program as well as continuous progress classes in the primary grades. Roaring River and Ronda-Clingman have had Reading Readiness Classes.

Drawing Conclusions

Several conclusions have been drawn as a result of this evaluation. Not all of these conclusions are verified by objective data. Many have been reached through self-assessment and study by the central administrative staff.

The following conclusions have been subjectively made by the present director who has served several years as a general supervisor in the school system.

1. The Title III Project was in the beginning too isolated from the total school program and in-service training should have been extended to the whole school faculty.
2. Teachers of interim classes should have visited the homes of their pupils.
3. Another problem that impeded progress was that the total school faculty did

not at first have a complete understanding of the program and was reluctant to accept change.

4. The follow-up made of the progress of interim class children in the present fifth and sixth grades indicates that this type of class is needed in every school. This appears to be a successful way of preventing future dropouts of students who have the potential to graduate from high school.
5. The leadership ability of both teachers and principals involved in the project has been enhanced and the success of the program has influenced organization and methods of teaching in other schools. Probably the greatest value of the program will be realized in future years as the principals plan programs for which this program laid the foundation.
6. The one factor that was most significant in providing a changed curriculum for boys and girls was the competence and willingness to work of the individual teacher. Team teaching cannot compensate for a lack of these qualities in a single member of the team.

Drawing Conclusions

It was clearly evident that parents of children involved in the Title III programs were well satisfied with their child's attitude and progress. It is also apparent that the teachers involved feel strongly in favor of the methodology used.

Observations from parents, teachers, and consultants show that children involved demonstrated a very positve attitude toward school that was not as evident among those not involved in the project.

As a result of the objective and subjective information gathered and evaluated concerning this Title III project, the Wilkes County Board of Education plans to continue both the continuous progress and intermin classes. Other schools in the

Wilkes County School System have adopted similar plans of organization. The program of continuous instruction has moved into the middle grades and materials are being selected to help teachers in providing individualized instruction for children in these grades. This summer teachers are being trained in an inservice program of reading for disadvantaged children, grades 4-6.

Parent Evaluation

Efforts to get feedback from parents was obtained through the use of questionnaires. Parents were asked to react to several items and were also given the chance to make comments concerning the program.

The following are direct statements from the parents of children in the Interim Class phase of the Wilkes County Title III Project.

We feel that this program is very important and should not be discontinued.

Considering that each child in this class has an individual problem, I have no idea as to how the other children reacted to the class. I, personally feel my child has benefited greatly from this type of class.

I think this program is very good for underachieving children and I would like for it to continue.

The interim class should be continued for other children who need it as much as my son did.

The interim program has been very helpful to my girl.

This class has really helped my son. We work on the second shift and could not help him at home. This class helped him to adjust to a new school this year. His teacher really did change his attitude toward school.

I approve of this program one-hundred percent because I know it has helped both of my children very much. It not only helps the child, but it also helps the parents to understand the child's progress in school.

I liked this class very much for it helped my child who needed it.

This class has helped my girl catch up in her work.

We feel that due to this school year our son has a better opportunity to be successful in his future school work.

My son has enjoyed this year very much. I feel he did much better in this class than he would have done in a regular class. I think his teacher has done a lot for him.

Statement of Parents of Children in The Continuous Program

We feel very fortunate that our children have had the opportunity to participate in this program. We would like for it to be continued in the middle grades. I feel our children have had a definite advantage over students who have not has this opportunity.

I think teacher aides and team teaching are very valuable to our children.

Sometimes I feel my third grade child is doing fifth grade math and English. Her achievement performance this year is better than that of my other daughter three years ago in the third grade.

I know this program has been better for my child because I have older children who didn't have it. I think it is great.

I really like the team teaching program and the help the aides give. It has helped my children very much. I hope the program is continued in the upper grades.

I feel this is the best school program the Wilkes County School System has ever offered. The child is able to progress at his own rate of speed and I think this is good.

I think this program shows the greatest progress our school system has made. Personally, I feel this program is wonderful. If the school system is interested enough to help my child individually, I feel it is a wonderful move.

I feel that the program our school has had for the last three years is a big improvement over the way things used to be.

I would like for this program to be continued. The progress program and teacher aides are wonderful to have.

I feel that this program has kept my child interested in school and it would do much harm not to continue it.

The following pages are the actual questionnaires used and the responses given. It should be noted that the total response in each line will not always equal the total number returned because some parents failed to respond to every item.

Interim Class Totals

Number Sent Out - 37

Number Returned - 37

Percent Participation - 100%

May 3, 1971

Dear Parents:

The end of the school year is near and it is time for all of us to take a good look at what has happened during the past few months. Although we feel that we have had a successful year, we realize that all programs need to be evaluated and adjusted when it is evident there is a need.

We believe that one of the best means of evaluation is by asking you and getting your reaction to what your child has or has not accomplished this year. We shall use your evaluation to assist us as we plan for improved learning situations for children in our schools.

Thanking you for your time and assistance, I am,

Sincerely,

_____

Principal

OPINIONNAIRE FOR INTERIM CLASS PARENTS

The following questions are to be interpreted and answered by comparing your child's present year in school with his previous years in school.

1. Do you feel that your child is reading better?

29 1. much better
8 2. somewhat better
____ 3. no change
____ 4. less well
____ 5. much less well
____ 6. no opinion

2. Has the child's skills in using arithmetic improved?

26 1. much more improvement
10 2. somewhat more improvement
____ 3. no change
1 4. somewhat less improvement
____ 5. much less improvement
____ 6. no opinion

3. Has your child improved in his spelling habits?

28 1. much more improvement
8 2. somewhat more improvement
____ 3. no change
1 4. somewhat less improvement
____ 5. much less improvement
____ 6. no opinion

4. Has the child's quality of handwriting improved?

30 1. much more improvement
6 2. somewhat more improvement
1 3. no change
____ 4. somewhat less improvement
____ 5. much less improvement
____ 6. no opinion

5. Is your child receiving more individual instruction?

31 1. much more individual instruction
4 2. somewhat more individual instruction
____ 3. no change
____ 4. somewhat less individual instruction
____ 5. much less individual instruction
2 6. no opinion

6. Is the subject matter more interesting to the child?

29 1. much more interesting
5 2. somewhat more interesting
____ 3. no change
____ 4. somewhat less interesting
____ 5. much less interesting
3 6. no opinion

7. Have you found that this class has stimulated your child's curiosity in learning new things?

29 1. much more curious to learn
6 2. somewhat more curious to learn
1 3. no change
_____ 4. somewhat less curious to learn
_____ 5. much less curious to learn
1 6. no opinion

8. Do you feel that your child has more opportunity for success in his school work?

32 1. much more opportunity
5 2. somewhat more opportunity
_____ 3. no change
_____ 4. somewhat less opportunity
_____ 5. much less opportunity
_____ 6. no opinion

9. In your opinion does the teacher challenge the child to do his best?

32 1. challenged much more
3 2. challenged somewhat more
1 3. no change
_____ 4. challenged less
_____ 5. challenged much less
1 6. no opinion

10. Does your child have a better attitude toward school than previously?

30 1. much better attitude
6 2. somewhat better attitude
1 3. no change
_____ 4. somewhat worse attitude
_____ 5. much worse attitude
_____ 6. no opinion

11. Does the child have a better attitude toward the teacher than previously?

31 1. much better attitude
3 2. somewhat better attitude
3 3. no change
_____ 4. somewhat worse attitude
_____ 5. much worse attitude
_____ 6. no opinion

12. Has your child's sense of responsibility toward his school work improved?

27 1. much more sense of responsibility
9 2. somewhat more sense of responsibility
1 3. no change
_____ 4. less sense of responsibility
_____ 5. much less sense of responsibility
_____ 6. no opinion

13. Do you find that your child is having fewer problems in relation to other children?(Getting along with other people)

27 1. much fewer problems
6 2. somewhat fewer problems
4 3. no change
_____ 4. many more problems
_____ 5. somewhat more problems
_____ 6. no opinion

14. Has this class improved your child's self-confidence?

30 1. much more self-confidence
4 2. somewhat more self-confidence
3 3. no change
_____ 4. somewhat less self-confidence
_____ 5. much less self-confidence
_____ 6. no opinion

15. From the following list select the attitude that best represents your overall evaluation of the program.

31 1. very favorable
5 2. somewhat favorable
_____ 3. cannot tell any difference
_____ 4. not favorable
_____ 5. very unfavorable
1 6. no opinion

16. Did any teacher or counselor visit your home in the interest of your child's progress in school? yes 14 no 14
What value do you place on such visits? much 20 little 3
none ___ hindered ___ no opinion 5

17. Did you attend a parent-teacher conference? yes 26 no 8
What value do you place on these conferences in understanding your child's progress? much 25 little 2 none ___
hindered ____ no opinion ____

18. What value do you place on teacher aides in the teacher-learning process of your child? much 33 little 2
none ___ hindered ___ no opinion 2

PLEASE FEEL FREE TO MAKE ANY ADDITIONAL COMMENTS ABOUT HOW YOU FEEL TOWARD THIS PROGRAM.

PLEASE RETURN NO LATER THAN MAY 22, 1971. NO SIGNATURE IS IS NECESSARY. THANK YOU.

Number Sent Out - 470
Number Returned - 305
Percent Participation - 65%

May 3, 1971

Dear Parents,

The continuous progress program in the primary grades is now nearing the end of its third year in our school. We are happy that your child has had the opportunity to be in this program.

The teachers follow your child's school progress by continuous evaluation, as well as using the regular school testing program. Examination of the program is being made by all school personnel in an effort to find better ways to help children learn.

We believe that your opinion of the program and your estimate of your own child's progress is very important. We would like for you to check the questions on this sheet. We shall use the answers of all the parents to help us evaluate the program and to plan for the years ahead.

Thank you for your help.

Sincerely,

_____
Principal

Please indicate your opinion of your child's improvement or progress by checking the appropriate space below:

	Much	Little	None	Hindered	No Opinion
Improvement in reading	249	44	4		4
Improvement in arithmetic	198	44	8		5
Improvement in my child's self-discipline	172	69	17		15
Improvement in my child's self-confidence	157	61	15	1	6
Improvement in my child's sense of responsibility toward his school work	203	61	16		6
Improvement in my child's interest in school work	213	50	9		5
Improvement in the amount of individual instruction my child has received	218	31	8		15
Improvement in my child's attitude toward his teacher	228	35	11	1	9
Improvement in my child's desire to attend school	193	55	18		10
Improvement in my child's willingness to do homework	193	55	18		10

Did you attend a parent-teacher conference? Yes 143 No 44 If so, how many times? 255

What value do you place on these conferences in understanding your child's progress? Much 141 Little 53 None 10 Hindered___ No opinion 61

What value do you place on teacher aides in the teaching-learning process of your child? Much 191 Little 33 None 8 Hindered progress 1 No opinion 38

Do you believe that the program overall has been of much value 206 Slight value 19 No value 3 or harmful to your child? Undecided 46

PLEASE FEEL FREE TO MAKE ANY ADDITIONAL COMMENTS ABOUT HOW YOU FEEL TOWARD TO PROGRAM.

RETURN TO THE SCHOOL NO LATER THAN MAY 22, 1971. NO SIGNATURE IS NEEDED

Teacher Evaluation

Each teacher was asked to evaluate the program in terms of the following:

1. Team teaching and team work within their respective schools.
2. Use of college and other outside consultants.
3. Use of aides as a team member.
4. Visitation to other projects related to Wilkes County project.
5. Methods used to free teachers for planning and in-service.
6. Visitation from other educators.
7. Use of additional materials in the teaching-learning process.
8. Service provided by the guidance counselor-social worker.
9. General help and assistance from Title III and central office personnel.

The reaction of the teachers were for the most part positive. As one might expect, with the number involved and the length of tenure ranging from none to thirty years, the reactions were different.

The following are statements taken directly from the teachers and principals who evaluated the Interim Program in their different schools.

1. Consultants have done extensive testing and placed children on levels where they belong. They have helped teachers to gain confidence in the grouping idea, and to understand children's needs, and their achievements.

2. In-service educational programs have given me a greater insight to underprivileged children, a better understanding of their needs, and the opportunities we have to help them.

3. My aide is very helpful. She takes the children out by groups for physical education, does clerical work, and helps with slow pupils. With her help, I can give full time to actual teaching.

4. The program has influenced me to look deeper into our educational program and build toward a better future.

5. Our leaders and office personnel have enthusiastically backed our program with their own help and also sent us good consultants. They have made arrangements for visitation and provided supplies.

6. Teachers in our school have stimulated one another by sharing ideas and materials, and pointing out weaknesses and strengths.

7. Visitations to other schools have been very valuable. New ideas, new approaches, and the inspiration we received were well worth our time.

8. Freeing of teachers occasionally gives time for much needed planning. Good planning makes the program.

9. Instructional materials have been a great help in developing the program. They have motivated the children to work independently.

Impact The Title III Interim Class Has Had on

Ronda-Clingman School
(Written by the principal)

After three years of experimenting and evaluating the many different methods of teaching, we believe this program has meant much to our entire program at Ronda-Clingman School.

With much emphasis being placed on identifying and organizing for individual needs the students have improved greatly in their academic work as well as their behavioral patterns.

The teacher has used many different materials and methods of teaching to help these children improve. Many of these materials were not available in our school until purchased by Title III.

Some of the things we believe helped in the achievement of students were planned conferences with parents; a full time aide to help the students and to relieve the teacher for visitations to other schools; in-service workshops; and preparation of materials.

Upon entering this classroom you would find a relaxed atmosphere, with students working in groups, or individually with books and game type activity.

During the past three years, the other teachers in our school have visited this classroom many times to observe the methods used. Many of the ideas have been used and found to be very successful.

We are hoping this trend will continue to influence all our teachers to look closely at themselves and the methods they are using to see if they are keeping abreast with modern trends to prepare students for a changing world.

There were many significant changes in students after they had been in this class for some time. Absences for many students declined. Students that had previously been problems for thoir teachers were working hard and doing their work. Attitudes of many students changed.

I believe the students as well as our faculty have benefited greatly from this program. It has been challenging to see and evaluate the many new materials as well as methods of teaching.

It has helped many of our teachers to break away from daily routine and experiment within their own classroom.

The following are statements of the reactions received from teachers and principals involved in the continuous progress program.

> The success of the team-teaching program at our school has been amazing. We have made a tremendous step towards individualized instruction. The children have enjoyed working in a team and teachers have been able to work in fields they enjoy most.
>
> I feel that children have benefited from team-work. They have received a variety of teaching techniques. Team-teaching has helped relieve the possessiveness we sometimes see between a teacher and "her" group of children. Children have developed an independence and security among their daily routines. Teaming lends itself easily to a free exchange of ideas. Weaknesses are thus strengthened.
>
> The use of new materials in this program cannot be over emphasized. New materials have stimulated students and teachers alike.
>
> The planning sessions have been more help to me than any other part of the program. We have used the time for conferences, in which we met and talked closely with parents. We have also worked on records and kept them up to date and have planned large group instruction. The time for these planning sessions is well spent.
>
> The team-teaching program has been a rewarding experience.for students, teachers, and parents within our school. In my opinion, it is the best program available to completely individualize instruction. I feel we must reach children indivdually if they are to succeed.
>
> Outside consultants have been successful in demonstrating new ideas and trends in education.
>
> In-service education programs have been most valuable in instructing and formulating definite policies and procedures to benefit the teachers.
>
> Aides have relieved teachers of many time consuming tasks allowing the teacher more time to work with students.
>
> Aides are a definite asset to the team-teaching program.
>
> Teacher aides are very important in helping children with individual problems and in relieving teachers of routine duties for more teaching and planning time.
>
> Team-teaching is very hard work, and things often do not proceed smoothly, but it all gets done. For a teacher this means not one lesson plan a day but a separate plan, in effect, for each child. We teachers can no longer record grades; we must keep a notebook in which we jot down all day long the children's progress and special problems. I am definitely a better teacher professionally since becoming a part of our team.

MILLERS CREEK ELEMENTARY SCHOOL

M. A. Cowles, Principal

Millers Creek, North Carolina

TITLE III EVALUATION

The past three years have proven to me that teachers can and will work as a team if properly directed. We have had two excellent Title III Directors, namely, Mr. Jackson and Mrs. Bivens, along with very efficient co-ordinators in the Millers Creek School. The aides have played a very important role, since they were all very highly qualified for the work which they were required to do. All members of the Central Staff have given much of their time, energy and knowledge to make it possible for our program in team teaching to be one of the best.

The visitations to other school systems have broadened the teachers and principals knowledge of the changes that have and are taking place in modern education. I believe that children are a part of all that which they have meant, both the seen and the unseen. I do not know of any good test that would give the children full credit for all that they have learned in the Title III Program.

M A Cowles

State Visitation Team Evaluation

During February of this year, Mr. D. B. Chandler, ESEA Title III Consultant, and four Evaluation Team Members evaluated the total Title III project in Wilkes County. The evaluation team members were:

Outside Expert - Mr. Russell Jefferson, Principal, Raleigh, North Carolina

Advisory Councilman - Mr. John Calloway, Principal, Raleigh, North Carolina

SDPI Elementary Education - Miss Marie Haigwood, Program Services Area, Raleigh, North Carolina

Each of the four schools were visited by at least two members who made a written evaluation of the program including recommendations. Since the report was received, a sincere effort has been made by teachers and principals to carry out the recommendations made by the team.

The evaluations of two team members are included in this evaluative report.

1. STRENGTHS OF PROJECT

Visits were made in the Millers Creek School and Mountain View School

The first three levels of the school program were observed at the Millers Creek School where we saw a large room situation for all first level students. In the large room there were three regular classroom teachers working with approximately eight-five students with the help of one aide. It was difficult to determine which person was the aide. All staff memebers were working with small groups of students while all other students were involved in individual work or either working in small groups.

Students knew what they were to do which showed that much planning had been made in advance by the team. Students were working on a one-to-one situation with numbers and many objects were observed that would help develop the number concepts. In the Language area, students were conversing with each other, with their teachers, and the aide. A small group of students were observed working with the Talking Alphabet, using their work sheets and the A-V equipment. Other students were working on the Reading Skills with the teacher in reading areas or centers in the large room.

Each student was working in a challenging situtation that was in line with his ability. There was no evidence of frustration in this room and all students seemed to be enjoying their work.

All staff members showed a deep concern for each student and the response of the students to the staff members and visitors was on a very high level.

Team-teaching and the non-graded concept was not limited to the first year students but extended through the second and third year program even though the second and third year levels were operating in the conventional classroom walls. The philosophy of non-graded and team-teaching was in evidence as observed in the classrooms and while talking with staff members.

The child and his needs were always evident in this school. Not only was his educational needs always the first concern but the general welfare of the child was in consideration as was observed when we visited the lunchroom and hallways.

Materials being used in this school were varied and students showed they were being used.

The staff members gave this visitor the feeling that they had a sincere feeling for the students, for each other, for the staff members from the Central Office and for the program in which they were involved. They believed in what they were doing and they wanted the program to continue on all levels in all schools even though there might be a cut in funds due to not having the money they have had in the past.

The interim class and kindergarten class at Mt. View, Hays School were visited. The interim class gave students who had finished the third year an opportunity to work with a smaller group of students in materials that were designed to better meet their needs. These students had been selected through tests and recommendations of special trained personnel. The atmosphere in this class was relaxed with much formality being omitted. Students were anxious to contribute and each child felt free to make his contribution without regard to whether it would be accepted or not. The staff here had received much help from the advisory staff.

II. WEAKNESSES AND SUGGESTIONS FOR IMPROVEMENT

Suggest the continuation and expansion of present project in all elementary schools at all grade levels.

III. RECOMMENDATIONS Please state immediate and long-range recommendations considering whether the funding will be by local funds or state funds. (All projects are terminating this fiscal year except Caswell County, Raleigh City, and Wilson County.)

The comments made by staff members and the report of the project indicated that this project had already had its impact on the entire system which is very good. The concern for children and their program was certainly on a very high level and it would be great if this philosophy could carry over to the secondary schools.

I. STRENGTHS OF PROJECT

1. Title III project has served as a catalyst to all elementary schools in the county as they work toward individualizing instruction.

2. Principals and teachers involved in the project appear to have greater security in trying innovative approaches to teaching and learing.

3. The college consultant has demonstrated with children some effective ways of diagnosing and prescribing for individual needs. He has taughtmany demonstration lessons.

4. Teachers and principals involved in the project have learned how to diagnose and prescribe. Other teachers and principals will learn from them.

5. The project results indicate that children are achieving at a higher level. My observations indicate that children are assuming more responsibility for self-discipline and that they are enjoying learning how to learn.

6. I have worked with this county for ten years. They have made great strides in improving the instructional program. This project has given real impetus to their efforts to seek out some better ways of organizing, teaching and learning.

7. Additional materials and equipment have been provided and these materials seem to be used to set up learning centers to assist in individualizing instruction.

8. The staff development aspect of this project has given teachers an opportunity to learn some new strategies and methods as they instruct children.

9. New facilities have been added to assist in implementing open classroom instruction.

10. The environment is conducive to good instruction. Buildings and classrooms are clean, attractive and inviting.

11. The money for Title III has been well spent.

C.B. Eller School -- Continuous Progress

- Teacher aides have been employed to assist teachers.

- Coordinator of the project in this school has assisted with diagnostic procedures and planned with teachers.

Ronda-Clingman School -- Interim Teacher

- Mrs. Baxter is a master teacher and has helped the group of children in the interim class to find themselves and to grow in skill development. They are excited about learning.

II. WEAKNESSES AND SUGGESTIONS FOR IMPROVEMENT

1. C. B. Eller School--

Continuous progress program could be strengthened with the help of a trained librarian.

2. C. B. Eller School--

The two teachers working with first-year children need to work more effectively as a team.

3. Ronda-Clingman School--

Consider better placement procedures for children leaving the interim class.

III. RECOMMENDATIONS Please state immediate and long-range recommendations considering whether the funding will be by local funds or state funds. (All projects are terminating this physical year except Caswell County, Raleigh City, and Wilson County.)

1. C. B. Eller School--

Find some way to provide a trained librarian for this school.

2. Continue to work toward individualizing instruction in all schools.

SELF-EVALUATION OF CONSULTANT SERVICES RENDERED TO
SELECTED TITLE III PROJECTS IN WILKES COUNTY

by Richard C. Culyer, III

In August, 1970, I was employed by the Wilkes County School System to assist in four projects funded under the provisions of the Elementary and Secondary Education Act, Title III (Projects to Advance Creativity in Education.)

My specific assignments included the following:

(1) demonstrate diagnostic techniques in reading, spelling, language, and mathematics

(2) demonstrate teaching techniques in reading (word attack, vocabulary, and comprehension), spelling, language, and mathematics

(3) determine initial placement of pupils in specific materials at their instructional levels.

(4) determine throughout the year whether students are still associated with appropriate materials

(5) Assist in the selection and proper use of appropriate materials for classroom and home use

(6) develop and provide diagnostic pre-tests designed to determine specific areas of need

(7) develop techniques for learning as alternatives or complements to the basal reader approach

(8) Provide, in summary, practical assistance in organizing and providing for individual instruction, defined here as placing youngsters with similar or identical needs in flexible commomnality groups.

(9) train a coordinator in one school to assume my functions during the following years.

During the 1970-71 school year, I worked with four different schools: Mountain View School, Ronda-Clingman School, Millers Creek School, and C. B. Eller School. Although my specific assignment varied from school to school, it always fell within the range of of the nine assignments indicated above.

The following paragraphs attempt to explain the specific activities I conducted at each school with an evaluative summary of possible progress resulting from the efforts of administrators, teachers, paraprofessionals, youngsters, and the consultant. Each school will be considered separately.

MILLERS CREEK SCHOOL

Description of services:

I was employed two days to work with the two third grade teachers at this school. Although my original assignment was to demonstrate some teaching techniques of word attack and comprehension in reading, this was changed when the two teachers voiced grave concern about the present rate of achievement of their pupils. According to the teacher of the lower group, for example, almost no student was making any measurable progress. Both teachers were most concerned about the problems which confronted their youngsters.

I, therefore, spent the entire day administering an informal reading inventory (IRI) individually to each pupil. An IRI is a series of graded reading passage selected from the beginning of each book to be used. Pupils read aloud to determine their instructional level in word attack and silently for their comprehension level. The lower of the two levels is the appropriate instructional level. We discovered that almost eighty percent of one class and fifty percent of the other were working with materials at their frustration levels. (At this point it should be understood that no grade-level books were being used in the lower group. Students had been associated with materials based on recommendations

made by prior teachers.)

It is well worth remembering that slower students often lose one or two book levels of skills during the summer, making it necessary for teachers to provide extensive review and reinforcement. As a result, we removed the inappropriate books from the possession of the students and substituted materials with which each person could experience success.

For the second day of consultation, I was asked to prepare demonstration lessons in the proper teaching of letter-sound associations (phonics) and comprehension. On that day the teachers and I also conferred about specific ways of working with pupils who were thus far failing to respond to the particular programs being presented.

Evaluation of services:

Although my work at Millers Creek School was of short duration, I believe the teachers became more aware of the importance of associating each youngster with material at his particular instructional level and that they (the teachers) acquired skill in carrying out such a diagnostic procedure.

MOUNTAIN VIEW SCHOOL AND RONDA-CLINGMAN SCHOOL

Description of services:

Because the services rendered to these schools were quite similar and in several cases identical, I have chosen to combine the presentation with major exceptions as noted herein.

I had not previously worked with the young male teacher at Mountain View School, but had served with the lady at Ronda-Clingman School two years before. The fact that the latter had acquired tremendous skill in diagnosing and providing for specific needs of a wide variety of youngsters with diverse capabilities, interests, competencies, and needs positively influenced the sophistication of the service I was able to render.

At the beginning of the year, I determined for each teacher the specific materials appropriate for each pupil and discussed in conference and demonstrated

in actual practice the techniques to use for this activity.

Our diagnostic pre-tests included reading, spelling, and mathematics. As a result of analysis of each pre-test, we structured specific programs only for those youngsters who (1) needed the particular skills involved and (2) possessed the essential prerequisite skills.

After having determined the curriculum needed to effect maximum academic growth, we proceeded to develop the necessary skills, concepts, and attitudes. To accomplish this end, I conducted a number of demonstration teaching sessions. As examples, I taught the students letter-sound associations, vocabulary development techniques, and comprehension skills. We pursued a depth of understanding through study of literal, implied, and creative meanings. I also taught spelling, English, and mathematics demonstration lessons, terminating each with an evaluation in order to ascertain the degree of my own effectiveness. The relationship of this type of procedure in this age of accountability should be obvious. (However, it is worthy of note that in any demonstration lesson or procedure I conduct, my primary object is to impart knowledge to the teacher on the sequential continuity of the method as well as techniques of modifying intended activities on the basis of spontaneously observed pupil need.

During the course of the year, I worked with a whole class, with groups, and with particular students designated by their teachers as experiencing unusual amounts of difficulty in achieving satisfactory progress. I also checked to determine whether students were still associated with the appropriate level of learning material and assisted in the selection of additional materials when others were completed or deemed inadvisable.)

These last two activities are extremely significant because we have found across the country tremendous nunbers of youngsters who begin books at their instructional levels, but who complete them at their frustration levels because information is presented too rapidly and without adequate repetition. In addition, I am extremely concerned by the frequently observed lack of continuity in skills

development as it results from the failure of the school to pursue a systematically planned and coordinated instructional program.

My responsibilities at these two schools also included evaluation of particular pieces of material being considered for purchase and discussion with the teachers of educationally acceptable uses of these items. We also attempted to guide the work of the teacher aides in order that more standardized (and consequently less demanding in terms of professional evaluation and reaction) teaching and learning activities might be delegated for their consideration.

Evaluation of services:

I am particulary well pleased with my efforts in these two schools. Perhaps the best evaluation that can presently be made of my presence here lies in the fact that the lady with whom I had first worked two years ago operated at quite a sophisticated level. She was competent without my direct assistance in administering and interpreting the diagnostic pre-tests we had previously developed. In addition her proper use of techniques indicated the "staying power" of methods previously presented. As a result, we were able to begin and proceed on a much higher plane than would normally have been the case.

Although this evaluation of my services properly belongs to a report written for two years for the Wilkes County Board of Education, it is more appropriate here for its indication of the long-range effect I hope will result from my efforts.

The young man has great promise as a teacher. He is highly motivated, relates well to his students, and is anxious for specific constructive criticisms of his procedures. I believe both teachers have made tremendous professional growth and that this growth has manifested itself in the personal and academic development of the pupils.

Perhaps the weakness of the programs in both of these schools results from the fact that few teachers from within the county observed what should have been a highly desirable visitational experience. Maximum impact on the schools themselves could certainly have been fostered by more frequent inter-visitation.

C. B. ELLER SCHOOL

Description of services:

The majority of my total consultant time was spent at C. B. Eller School, working with second and third-year students primarily and on occasion with first-year pupils. The following activities are rather representative of the types of responsibilities which I assumed at various times.

Before the youngsters arrived at the beginning of school, I met with the five teachers and the coordinator. Together, we discussed plans for the coming year and compared our philosophies and strategies for meeting individual needs.

Almost immediately after school began, I was asked to interview each of the 140 pupils in the large complex to determine which book in the Allyn and Bacon Sheldon Basic Reading Series was most appropriate for his use. (A brief referral to the IRI mentioned previously may be useful.) This diagnosis was individual and required almost three days. During that time (and in all subsequent endeavors) I trained the coordinator to conduct the activities being done.

Having determined the instructional level for almost every pupil, we then held a staff meeting and assigned pupils to groups. Primary attention was given to age, physical factors, social development, rate of learning, and level of achievement. In this manner students were assigned to each of the five teachers. Two pupils required extended readiness and received this instruction outside the program being described. Six other boys who were fourth-grade age, but third "grade" students read at the first reader level or below and were not given any basal reader. We were quite reluctant to have these fellows read the "lemonade stand" stories.

These six formed a separate group and received instruction and practice using an alternate approach to the basal reader- the language-experience approach (LEA).

I began the teaching procedure by asking the first boy-Ricky Caudill- what

he would do if he were not at school that day. I recorded his response and had him reread it to me several times, assisting with the words. His homework was to take the self-written story home and learn it so well he would be able to recognize the words through the open slot, a piece of paper which covers all but a single word.

The same procedure was used for the other five members of the group. On the following day, we typed the dictated stories on stencils and had sufficient copies duplicated to allow each boy to hold one. After the "author" had read his story without errors, he signed his name in the space after "Written by..." He then proceeded to teach his companions his story, allowing them to sign their names on the lines after "Read by..." after they too had recorded perfect performances.

I also wrote appealing stories or comments on the board during each visit. The boys were taught to work together to read the entire selection. The first person to complete the activity with no errors was assigned to teach the others. Single concept cards were first developed by us- this idea originated with me and has proved quite successful in dozens of schools- and later by the boys themselves.

No books were used until the boys asked for them. Our attention was focused on teaching by a visual approach because initial diagnosis indicated conclusively that the boys' auditory discrimination was extremely poor- making any auditory approach, i. e., phonics, quite undesirable and useless at that time. We set about to change the boys' self-concepts as related to reading by immersing them in a can't-fail, forced-success environment.

During my first two months of work with the teachers at C. B. Eller School, I spent quite a bit of time with this group demonstrating techniques of diagnosis and reaction teaching.

In addition, I taught demonstration lessons for all teachers with all groups, primarily those operating at the lower end of the achievement spectrum. The lessons included reading through use of the basal reader, levels of comprehension, (literal, implied, creative),and letter-sound associations. Spelling included specific skills

instruction, and mathematics usually revolved around inverse operations with several youngsters and one group which had failed to respond to previous instructional techniques.

Essentially a modification of the Skinnerian stimulus-response approach was used to provide immediate feedback. This was frequently coupled with the Homme rewards-unit as a motivational device. The specific procedures used were designed to focus student attention on the teaching and learning activities being conducted.

As the year progressed, the language-experience group made such satisfactory progress that a second teacher requested assistance in establishing a similar group with three of her pupils who were not making acceptable progress (for them). Eventually the two groups merged, and other students were moved into the language-experience group as several of the original pupils acquired a sufficient level of reading vocabulary to support more formal, intensive, and sequential instruction in word attack, vocabulary, and comprehension skills.

I also helped evaluate materials and demonstrate acceptable use of such items as the Peabody Language Development Kits and the Science Research Associates Multi-level Kits. During each day, we had a lunch staff meeting and discussed ways of solving particular problems and techniques we had found successful with certain types of youngsters.

On occasion, I took the less efficient readers to the library and attempted to develop criteria for assisting them in selecting books at their independent reading levels.

In one instance I spontaneously demonstrated the use of the language-experience approach with first-year pupils.

As was true in all situations, I kept the principal and Title III Director completely informed as to where we were going, how we were trying to get there, and what progress we were making.

Evaluation of services:

Perhaps because I was more systematically and frequently involved with

youngsters there, I feel extremely pleased with the progress at C. B. Eller School. We certainly have not solved all of the problems, but we seem to have made a promising beginning.

New methods of teaching were first demonstrated and later observed by me. The use of the language-experience approach is an excellent example. The application of immediate reinforcement is another. Correct placement in books initially was enhanced by constant checking during each visit to determine if the presentational pace had outstripped youngsters' ability to master certain skills. Ability to work in a sustained manner for those using the LEA was quite obvious. The number of discipline problems, according to the teachers, was considerably reduced. Not having worked with the C. B. Eller youngsters previously, however, I am not personally competent to evaluate this factor. Motivation to learn and attend to a task definitely increased, although this does not mean interest never waned. Teacher sharing of ideas and information on specific pupils was readily noticeable.

The use of teacher aides, especially to remove youngsters on a staggered schedule for physical education during reading was an innovation developed by the Director that seemed to pay rich dividends in terms of decreased pupil-teacher ratio. (Certain reading-level groups were removed simultaneously.)

Youngsters became adjusted to the use of more free and open space. Near-chaos seemed to reign at "in-motion" times during my first week, but by the end of the month everything seemed synchronized and coordinated.

There was a definite willingness on the part of the professional personnel to try something different, to give new ideas a fair chance. Not everything we considered was successful; not everything we tried was considered worth continuing.

As a consultant I learned a great deal. I found through my own demonstrations the need for extensive reinforcement of learning, the amount of summer reading loss for disadvantaged children, the reactions of poor readers to an approach other than the basal reader, and the effectiveness of immediate feedback for learning activities.

The C. B. Eller program was most successful, in my opinion. It offers teachers a unique (almost) opportunity to see really effective learning by pupils considered previously as unteachable. I did not agree with everything that was done, and I did not always have my way. We operated as a team, and I had one vote plus my potential ability to support my suggestions with actual demonstrations. Where I succeeded the boys and girls of C. B. Eller School hopefully benefited. Where I failed I am planning to try again.

STANDARDIZED TEST RESULTS AND STATISTICAL ANALYSIS

The following information adds some insight to the performance of the students involved in the Title III program. The information given was secured by the local administration and employment of a testing analyst. The director of the project was responsible for compiling all data for the purpose of analyzing.

Although the information in this report points out several important factors, it is not to be interpreted as a measure of the total aspect of the educational development desired by this project.

Statistical Analysis

Achievement Test Results

EVALUATION DESIGN

The statistical assessment of the Title III evaluation consists of two parts. The first part is directed toward an evaluation of the Interim Classes, with the second part being devoted to an assessment of the Continuous Progress Program.

The t-test was employed as a means of statistically assessing the differences in achievement on the subtests of both the "California Achievement Test" and the "Stanford Achievement test".

Definition of Terms Used

Mean (M) - The mean is simply the arithmetic average of all scores in the distribution.

Standard Deviation (S. D.) - The standard deviation is a statistic that represents the variability or dispersion of scores around the mean. It is an index that represents the variability of a series of numbers.

N - The number of scores in the distribution.

T-test (t) - The t-test is a statistical device employed by researchers to test the significance of difference between means of two groups, i.e., to determine whether or not the means come from populations with the same mean or from populations with different means. The t-ratio derived from the t-test tells whether or not the significant difference does in fact exist. When the t-ratio is significant we can be practically certain that there is truly a real difference between the two means under study. When the t-ratio is not significant, we have to infer that there is no real difference between the two group means.

Level of significance - The level of significance is simply a statement of probability as to whether or not the difference between the means represents some real difference or whether or not no real difference exists. For example if the t-value is significant as the .05 level, the probability is on 1 in 20 that the obtained difference between two means could be obtained by chance. When the t-value is not significant, as explained earlier, the researcher must conclude that there is no real difference between the two means.

Experimental Groups and Control Groups

A. Interim Classes	Control Groups
1. School A - Mountain View	Millers Creek
2. School B - Ronda Clingman	Roaring River
B. Continuous Progress Primary Programs	Control Schools
1. Millers Creek	Mulberry
2. C. B. Eller	Ronda Clingman

Achievement Test scores used in evaluating programs

A. Interim Classes

1. 1970-71 Interim classes only - California Achievement Tests

Level	Date of Testing
Primary	Pre-test 9-9-70
Elementary	Post-test 5-5-71

2. 1970-71 Interim classes and Control groups

Stanford Achievement Test

Level	Form	Grade	Date of Testing
Primary II	Y	3	4-70
Intermedicate I	X	4	4-71

Various Comparisons of Test Results

A. Interim Classes

1. California Achievement Test - Interim Classes only. Progress of each group from fall, 1970 (Primary) to apring 1971 (Elemetary)

2. Stanford Achievement Test - Interim and Control Groups.

   a. Progress of each group from spring, 1970 (Primary level, grade 3) to spring, 1971 (Intermediate level, grade 4)

   b. Comparison of Interim classes with Control groups (spring 1970 - grade 3 and spring 1971 - grade 4)

   c. Pre-test/Post-test comparison of Stanford Achievement Test results.

   d. Pre-test/Post-test comparison of Otis I. Q. results.

B. Continuous Progress Primary Programs Stanford Achievement Test - Experimental and Control Groups.

   1. Longitudinal Comparison

      a. Grade 3, 1971 - Comparison of mean grade equivalency scores for three consecutive years.

      b. Grade 2, 1971 - Comparison of mean grade equivalency scores for two consecutive years.

Statistical Analysis

Interim Program

California Achievement Test

Pre-test/post-test comparisons have been made from results on the California Achievement Test. Tests were administered to fourth grade students in the interim classes in September, 1970 and again in May, 1971.

Table I reveals that students in school A made very substantial gains on each of the sub-tests. A range of increases in grade placement scores of from 1 year 4 months (1.4) on arithmetic fundamentals to 2 years 7 months (2.7) on spelling was in evidence. Normal growth for this period of time would be approximately 8 months (0.8), however, the increase on total reading was 1.71, while total arithmetic increased 1.62. Growth on the total language portion revealed a very substantial increase of 2 years 4 months (2.4).

Results for school B are presented in Table II. Students in the interim classes revealed increases that were even more pronounced than those discussed for school A. The increase ranged from 2 years 0 months (2.01) on arithmetic reasoning to 2 years 8 months (2.83) on spelling, while an increase of 2 years 5 months (2.5) was in evidence for the total battery.

The comparisons for each school showed differences of statistical significance at the one percent (.01) level of confidence on all sub-tests for each school.

Stanford Achievement Test

Interim and Control classes were tested as third graders in April 1970 and again as fourth grade students in April 1971. Interim and Control Class comparisons have been made for both tests, with the third grade results being referred to as "Pre-tests" and the fourth grade scores being referenced as "Post-tests".

Interim/Control group comparisons for each sub-test on the Stanford Achievement Test are presented in tables III-X. Results on word meaning, as shown in table III, reveal that on the pre-test the difference between mean scores (grade equivalency) of the Interim and Control groups were not of statistical significance for either of the two groups, A and B; however, on the post-test the increase of 1.54 years for Interim School B over Control group B was statistically significant at the 1% confidence level. A further analysis reveals similar to the above on four of the remaining seven sub-tests. Differences of slightly less significance were in evidence on paragraph meaning (Table IV) and language (Table VIII), while comparisons on spelling fail to indicate any differences of statistical significance.

Based on the information presented from the April 1970 and April 1971 scores it can be concluded that students in Interim Class B benefitted substantially as a result of their participation in the special program. Although Interim Class A did not reveal very significant differences on the tests they did realize very notieable differences on most sub-test areas.

Otis I. Q. Test

Interim/Control group comparisons of results on the Otis I. Q. Test are presented in Tables XI and XII. Table XI shows that on the pre-test

as third graders only slight differences between mean I.Q. scores were in evidence. On the post-test, however, scores for interim and Control Classes "A" show a difference of 5.15 points in I.Q. in favor of the Interim Class. Although the difference is not of statistical significance, the difference is quite noticeable.

The longitudinal comparisons shown in Table XII also fail to reveal a difference of statistical significance, although, Interim Class B made a substantial gain, while Control Class A showed a very noticeable decrease in I.Q. from April 1970 to April 1971.

Conclusion

Statistical date gathered from the California Achievement Test, Stanford Achievement Test and Otis I.Q. Test indicates that the Interim and Control Classes were well matched as third graders, however, by the end of the fourth grade the I.Q. scores for the Interim Classes were noticeably higher than their counterparts in the control schools.

Scores on the achievement tests indicate very significant gains for the Interim Classes on all sub-tests of the California Achievement Test, with the gains for Interim Class B being somewhat more pronounced than those for group A. A very similar pattern is in evidence on the Stanford Achievement Test. Substantial increases in achievement of of Interim Classes are in evidence, however, the differences are less pronounced than those just mentioned. Once again the increases for Interim Class B were more significant than those for Group A.

PRE-TEST/POST-TEST COMPARISON OF

MEAN GRADE EQUIVALENCY SCORES

ON THE CALIFORNIA ACHIEVEMENT TEST

Fourth Grade -- School A

Subject	X Sept.	X May	Diff.	T-Value
Read Vocabulary	3.47	4.96	1.49	.01
Read Comprehension	3.33	5.14	1.81	.01
Total Reading	3.41	5.12	1.71	.01
Arithmetic Reasoning	3.57	5.38	1.81	.01
Arithmetic Fundamentals	3.69	5.09	1.40	.01
Total Arithmetic	3.67	5.29	1.62	.01
Mechanics of English	3.46	5.75	2.29	.01
Spelling	3.51	6.21	2.70	.01
Total Language	3.46	5.83	2.37	.01
Battery Total	3.02	5.43	2.37	.01

Table I

PRE-TEST/POST-TEST COMPARISON OF

MEAN GRADE EQUIVALENCY SCORES

ON THE CALIFORNIA ACHIEVEMENT TEST

Fourth Grade -- School B

Subject	X Sept.	X May	Diff.	T-Value
Read Vocabulary	3.09	5.36	2.27	.01
Read Comprehension	3.08	5.47	2.39	.01
Total Reading	3.05	5.44	2.39	.01
Arithmetic Reasoning	3.26	5.27	2.01	.01
Arithmetic Fundamentals	3.34	5.96	2.62	.01
Total Arithmetic	3.31	5.79	2.48	.01
Mechanics of English	3.21	5.85	2.64	.01
Spelling	2.90	5.73	2.83	.01
Total Language	3.17	5.87	2.70	.01
Battery Total	3.18	5.72	2.54	.01

Table II

COMPARISON OF MEAN GRADE EQUIVALENCY SCORES OF

INTERIM CLASSES WITH THE CONTROL CLASSES

STANFORD ACHIEVEMENT TEST

Word Meaning

PRE-TEST (APRIL 1970)

GROUP	INTERIM	CONTROL	DIFF.	T-VALUE
School A	2.62	2.73	.11	
School B	3.08	3.19	.11	

POST-TEST (APRIL 1971)

GROUP	INTERIM	CONTROL	DIFF.	T-VALUE
School A	3.63	3.58	.05	
School B	6.01	4.47	1.54	.01

Table III

COMPARISON OF MEAN GRADE EQUIVALENCY SCORES OF

INTERIM CLASSES WITH THE CONTROL CLASSES

STANFORD ACHIEVEMENT TEST

Paragraph Meaning

PRE-TEST (APRIL 1970)

GROUP	INTERIM	CONTROL	DIFF.	T-VALUE
School A	2.70	2.49	.21	
School B	2.90	3.18	.28	

POST-TEST (APRIL 1971)

GROUP	INTERIM	CONTROL	DIFF.	T-VALUE
School A	3.77	3.39	.38	
School B	4.92	4.04	.88	.05

Table IV

COMPARISON OF MEAN GRADE EQUIVALENCY SCORES OF

INTERIM CLASSES WITH THE CONTROL CLASSES

STANFORD ACHIEVEMENT TEST

Science and Social Studies

PRE-TEST (APRIL 1970)

GROUP	INTERIM	CONTROL	DIFF.	T-VALUE
School A	2.97	3.40	.43	
School B	3.65	3.16	.49	

POST-TEST (APRIL 1971)

GROUP	INTERIM	CONTROL	DIFF.	T-VALUE
School A	3.66	3.91	.25	
School B	5.65	4.43	1.22	.01

Table V

COMPARISON OF MEAN GRADE EQUIVALENCY SCORES OF

INTERIM CLASSES WITH THE CONTROL CLASSES

STANFORD ACHIEVEMENT TEST

Spelling

PRE-TEST (APRIL 1970)

GROUP	INTERIM	CONTROL	DIFF.	T-VALUE
School A	3.13	2.57	.56	
School B	3.49	3.63	.14	

POST-TEST (APRIL 1971)

GROUP	INTERIM	CONTROL	DIFF.	T-VALUE
School A	4.22	3.65	.57	
School B	5.68	4.69	.99	

Table VI

COMPARISON OF MEAN GRADE EQUIVALENCY SCORES OF

INTERIM CLASSES WITH THE CONTROL CLASSES

STANFORD ACHIEVEMENT TEST

Word Study Skills

PRE-TEST (APRIL 1970)

GROUP	INTERIM	CONTROL	DIFF.	T-VALUE
School A	2.26	2.69	.43	
School B	2.64	2.47		

POST-TEST (APRIL 1971)

GROUP	INTERIM	CONTROL	DIFF.	T-VALUE
School A	3.24	2.82	.42	
School B	5.45	4.02	1.43	.01

Table VII

COMPARISON OF MEAN GRADE EQUIVALENCY SCORES OF

INTERIM CLASSES WITH THE CONTROL CLASSES

STANFORD ACHIEVEMENT TEST

Language

PRE-TEST (APRIL 1970)

GROUP	INTERIM	CONTROL	DIFF.	T-VALUE
School A	2.58	2.91	.33	
School B	2.64	2.91	.27	

POST-TEST (APRIL 1971)

GROUP	INTERIM	CONTROL	DIFF.	T-VALUE
School A	3.51	3.26	.25	
School B	5.18	4.40	.78	.05

Table VIII

COMPARISON OF MEAN GRADE EQUIVALENCY SCORES OF

INTERIM CLASSES WITH THE CONTROL CLASSES

STANFORD ACHIEVEMENT TEST

Arithmetic Computation

PRE-TEST (APRIL 1970)

GROUP	INTERIM	CONTROL	DIFF.	T-VALUE
School A	2.94	3.27	.33	
School B	3.81	3.06	.75	.01

POST-TEST (APRIL 1971)

GROUP	INTERIM	CONTROL	DIFF.	T-VALUE
School A	3.27	3.99	.72	
School B	5.48	3.95	1.53	.01

Table IX

COMPARISON OF MEAN GRADE EQUIVALENCY SCORES OF

INTERIM CLASSES WITH THE CONTROL CLASSES

STANFORD ACHIEVEMENT TEST

Arithmetic Concepts

PRE-TEST (APRIL 1970)

GROUP	INTERIM	CONTROL	DIFF.	T-VALUE
School A	2.75	2.92	.17	
School B	3.40	3.06	.34	

POST-TEST (APRIL 1971)

GROUP	INTERIM	CONTROL	DIFF.	T-VALUE
School A	3.15	3.99	.84	
School B	5.44	4.08	1.36	.01

Table X

INTERIM/CONTROL GROUP COMPARISON

OF RESULTS ON OTIS I.Q. TEST

PRE-TEST (APRIL 1970)

GROUP	INTERIM	CONTROL	DIFF.	T-VALUE
School A	94.50	94.47	+.03	
School B	95.75	97.12	-1.37	

POST-TEST (APRIL 1971)

GROUP	INTERIM	CONTROL	DIFF.	T-VALUE
School A	93.78	88.63	+5.15	
School B	101.06	99.29	+1.77	

Table XI

LONGITUDINAL COMPARISON OF RESULTS ON

THE OTIS I.Q. TEST

INTERIM	3rd GR. I.Q.	4th GR. I.Q.	DIFF.	T-VALUE
School A	94.50	93.78	- .72	.24
School B	95.75	101.06	+5.31	1.60
CONTROL	3rd GR. I.Q.	4th GR. I.Q.	DIFF.	T-VALUE
School A	94.47	88.63	-5.84	1.93
School B	97.12	99.29	+2.17	.55

Table XII

Continuous Progress Program

Table XIII presents a three year longitudinal comparison of mean grade equivalency scores of the Continuous Progress Class at Millers Creek School and the Control Class at Mulberry. The data fails to indicate any significant difference in the achievement of the two groups for the duration of the program. Very similar results are in evidence for the Continuous Progress Class at C. B. Eller School as shown in Table XIV.

Table XV shows the results of another Continuous Progress Class at Millers Creek and at the end of grade two results on five of the six sub-tests favor the experimental class over their counterparts at Mulberry, although, the differences are not of great significance. Findings for the Continuous Progress Class at C. B. Eller as shown in Table XVI also favor this group over the Control Class at Ronda-Clingman, however, once again the difference is quite small.

The statistical evidence presented in Table XIII-XVI indicates that the achievement level of the continuous Progress Classes at Millers Creek and C. B. Eller is only slightly higher than that for their counterparts at Mulberry and Ronda-Clingman, the designated Control Groups.

COMPARISON OF MEAN EQUIVALENCY SCORES

FOR THREE CONSECUTIVE YEARS

STANFORD ACHIEVEMENT TEST

Millers Creek

	Grade 1 1968-69		Grade 2 1969-70		Grade 3 1970-71	
	Millers Creek	Mulberry	Millers Creek	Mulberry	Millers Creek	Mulberry
Word Meaning	1.4	1.8	2.8	2.8	3.0	2.8
Paragraph Meaning	1.6	1.8	2.6	2.6	2.8	3.0
Spelling	1.4	1.4	2.4	2.4	3.0	3.2
Word Study Skills	1.4	1.6	2.0	2.0	2.4	2.4
Arith. Computation	1.4	1.8	2.6	2.4	3.2	3.2
Battery Total	1.6	1.7	2.6	2.5	3.1	3.0

Table XIII

COMPARISON OF MEAN EQUIVALENCY SCORES

FOR THREE CONSECUTIVE YEARS

STANFORD ACHIEVEMENT TEST

C. B. Eller

	Grade 1 1968-69		Grade 2 1969-70		Grade 3 1970-71	
	C.B. Eller	Ronda-Clingman	C.B. Eller	Ronda-Clingman	C.B. Eller	Ronda-Clingman
Word Meaning	1.4	1.6	2.6	2.6	3.3	3.2
Paragraph Meaning	1.6	1.6	2.6	2.6	3.0	3.0
Spelling	1.4	1.6	3.2	3.2	3.1	3.8
Word Study Skills	1.6	1.6	2.4	2.6	3.1	3.0
Arith. Computation	1.6	1.6	3.0	3.3	3.5	3.6
Battery Total	1.5	1.6	3.0	2.7	3.1	3.4

Table XIV

COMPARISON OF MEAN EQUIVALENCY SCORES

FOR TWO CONSECUTIVE YEARS

STANFORD ACHIEVEMENT TEST

Millers Creek

	Grade 1 1969-70			Grade 2 1970-71		
	Millers Creek	Mulberry	Diff.	Millers Creek	Mulberry	Diff.
Word Meaning	1.4	1.4	.0	2.8	2.2	+.6
Paragraph Meaning	1.4	1.6	-.2	2.6	2.2	+.4
Spelling	1.4	1.4	.0	2.4	2.4	.0
Word Study Skills	1.4	1.4	.0	2.4	2.0	+.4
Arith. Computation	1.6	1.8	-.2	2.8	2.4	+.4
Battery Total	1.6	1.6	.0	2.7	2.2	+.3

Table XV

COMPARISON OF MEAN EQUIVALENCY SCORES

FOR TWO CONSECUTIVE YEARS

STANFORD ACHIEVEMENT TEST

C. B. Eller

	Grade 1 1969-70			Grade 2 1970-71		
	C. B. Eller	Ronda-Clingman	Diff.	C. B. Eller	Ronda-Clingman	Diff.
Word Meaning	1.4	1.6	-.2	2.6	2.2	+.4
Paragraph Meaning	1.6	1.6	.0	2.6	2.4	+.2
Spelling	1.4	1.6	-.2	2.4	2.4	.0
Word Study Skills	1.4	1.6	-.2	2.6	2.4	+.2
Arith. Computation	1.8	1.8	.0	2.8	2.8	.0
Battery Total	1.6	1.5	.0	2.7	2.5	+.2

Table XVI

APPENDIX

PRE-TEST/POST-TEST COMPARISON OF GRADE EQUIVALENCY SCORES

FOR INTERIM CLASS A

CALIFORNIA ACHIEVEMENT TEST

Subtest	Sept. '70	May '71	T-Value
Read Vocabulary	Mean = 3.47 S.D. = .70 N = 20	Mean = 4.96 S.D. = .77 N = 20	6.41**
Read Comprehension	Mean = 3.33 S.D. = .65 N = 20	Mean = 5.14 S.D. = 1.20 N = 20	5.93**
Total Reading	Mean = 3.41 S.D. = .61 N = 20	Mean = 5.12 S.D. = .98 N = 20	6.63**
Arithmetic Reasoning	Mean = 3.57 S.D. = .58 N = 20	Mean = 5.38 S.D. = .82 N = 20	8.07**
Arithmetic Fundamentals	Mean = 3.69 S.D. = .70 N = 20	Mean = 5.09 S.D. = .91 N = 20	5.45**
Total Arithmetic	Mean = 3.67 S.D. = .64 N = 20	Mean = 5.29 S.D. = .86 N = 20	6.77**
Mechanics of English	Mean = 3.46 S.D. = .62 N = 20	Mean = 5.75 S.D. = 1.13 N = 20	7.95**
Spelling	Mean = 3.51 S.D. = .90 N = 20	Mean = 6.21 S.D. = 1.74 N = 20	2.70*
Total Language	Mean = 3.46 S.D. = .66 N = 20	Mean = 5.83 S.D. = 1.15 N = 20	7.99**
Total Battery	Mean = 3.62 S.D. = .57 N = 20	Mean = 5.43 S.D. = .92 N = 20	7.99**

**Significant at .01 level
*Significant at .05 level

PRE-TEST/POST-TEST COMPARISON OF GRADE EQUIVALENCY SCORES

FOR INTERIM CLASS B

CALIFORNIA ACHIEVEMENT TEST

Subtest	Sept. '70	May '71	T-Value
Read Vocabulary	Mean = 3.09 S.D. = .91 N = 18	Mean = 5.36 S.D. = 1.42 N = 18	5.71**
Read Comprehension	Mean = 3.08 S.D. = .85 N = 18	Mean = 5.47 S.D. = 1.57 N = 18	5.68**
Total Reading	Mean = 3.05 S.D. = 1.04 N = 18	Mean = 5.44 S.D. = 1.51 N = 18	5.53**
Arithmetic Reasoning	Mean = 3.26 S.D. = .97 N = 18	Mean = 5.27 S.D. = 1.42 N = 18	4.96**
Arithmetic Fundamentals	Mean = 3.34 S.D. = 1.87 N = 18	Mean = 5.96 S.D. = 1.55 N = 18	4.58**
Total Arithmetic	Mean = 3.31 S.D. = 1.12 N = 18	Mean = 5.79 S.D. = 1.52 N = 18	5.58**
Mechanics of English	Mean = 3.21 S.D. = .90 N = 18	Mean = 5.85 S.D. = 1.53 N = 18	6.31**
Spelling	Mean = 2.90 S.D. = .93 N = 18	Mean = 5.73 S.D. = 1.62 N = 18	6.43**
Total Language	Mean = 3.17 S.D. = .88 N = 18	Mean = 5.87 S.D. = 1.55 N = 18	6.43**
Total Battery	Mean = 3.18 S.D. = .93 N = 18	Mean = 5.72 S.D. = 1.49 N = 18	6.14**

**Significant at .01 level
*Significant at .05 level

COMPARISON OF MEAN GRADE EQUIVALENCY SCORES OF

INTERIM CLASS A WITH CONTROL CLASS A

STANFORD ACHIEVEMENT TEST

Pre-test

Subtest	Interim Class A	Control Class A	T-Value
Word Meaning	Mean = 2.62 S.D. = .68 N = 19	Mean = 2.73 S.D. = .52 N = 19	.41
Paragraph Meaning	Mean = 2.70 S.D. = .54 N = 19	Mean = 2.49 S.D. = .61 N = 19	1.13
Spelling	Mean = 3.13 S.D. = .93 N = 19	Mean = 2.57 S.D. = .88 N = 19	1.91
Word Study Skills	Mean = 2.26 S.D. = .59 N = 19	Mean = 2.69 S.D. = 1.09 N = 19	1.51
Language	Mean = 2.58 S.D. = .48 N = 19	Mean = 2.91 S.D. = 1.03 N = 19	1.27
Arithmetic Computation	Mean = 2.94 S.D. = .90 N = 19	Mean = 3.27 S.D. = .57 N = 19	1.35
Arithmetic Concepts	Mean = 2.75 S.D. = .77 N = 19	Mean = 2.92 S.D. = 1.10 N = 19	.55
Science and Social Studies	Mean = 2.97 S.D. = .79 N = 19	Mean = 3.40 S.D. = 1.02 N = 19	1.45

**Significant at .01 level
*Significant at .05 level

COMPARISON OF MEAN GRADE EQUIVALENCY SCORES OF

INTERIM CLASS A WITH CONTROL CLASS A

STANFORD ACHIEVEMENT TEST

Post-test

Subtest	Interim Class A	Control Class A	T-Value
Word Meaning	Mean = 3.63 S.D. = 1.12 N = 19	Mean = 3.58 S.D. = .55 N = 19	.17
Paragraph Meaning	Mean = 3.77 S.D. = 1.39 N = 19	Mean = 3.39 S.D. = .82 N = 19	1.03
Spelling	Mean = 4.22 S.D. = 1.56 N = 19	Mean = 3.65 S.D. = .85 N = 19	1.40
Word Study Skills	Mean = 3.24 S.D. = 1.15 N = 19	Mean = 2.82 S.D. = 1.09 N = 19	1.16
Language	Mean = 3.51 S.D. = 1.33 N = 19	Mean = 3.26 S.D. = .75 N = 19	.71
Arithmetic Computation	Mean = 3.27 S.D. = 1.19 N = 19	Mean = 3.99 S.D. = .76 N = 19	2.22*
Arithmetic Concepts	Mean = 3.15 S.D. = 1.29 N = 19	Mean = 3.99 S.D. = 1.39 N = 19	1.93
Science and Social Studies	Mean = 3.66 S.D. = 1.08 N = 19	Mean = 3.91 S.D. = .60 N = 19	.88

**Significant at .01 level
*Significant at .05 level

COMPARISON OF MEAN GRADE EQUIVALENCY SCORES OF

INTERIM CLASS B WITH CONTROL CLASS B

STANFORD ACHIEVEMENT TEST

Pre-test

Subtest	Interim Class B	Control Class B	T-Value
Word Meaning	Mean = 3.08 S.D. = .49 N = 17	Mean = 3.19 S.D. = .56 N = 17	.61
Paragraph Meaning	Mean = 2.90 S.D. = .49 N = 17	Mean = 3.18 S.D. = .64 N = 17	1.44
Spelling	Mean = 3.49 S.D. = .62 N = 17	Mean = 3.63 S.D. = 1.14 N = 17	.45
Word Study Skills	Mean = 2.64 S.D. = .49 N = 17	Mean = 2.47 S.D. = 1.21 N = 17	.54
Language	Mean = 2.64 S.D. = .49 N = 17	Mean = 2.91 S.D. = .48 N = 17	1.63
Arithmetic Computation	Mean = 3.81 S.D. = .38 N = 17	Mean = 3.06 S.D. = .56 N = 17	4.58**
Arithmetic Concepts	Mean = 3.40 S.D. = .69 N = 17	Mean = 3.06 S.D. = .85 N = 17	1.28
Science and Social Studies	Mean = 3.65 S.D. = 1.20 N = 17	Mean = 3.16 S.D. = .86 N = 17	1.36

**Significant at .01 level
*Significant at .05 level

COMPARISON OF MEAN GRADE EQUIVALENCY SCORES OF

INTERIM CLASS B WITH CONTROL CLASS B

STANFORD ACHIEVEMENT TEST

Post-test

Subtest	Interim Class B	Control Class B	T-Value
Word Meaning	Mean = 6.01 S.D. = .69 N = 17	Mean = 4.47 S.D. = 1.26 N = 17	4.42**
Paragraph Meaning	Mean = 4.92 S.D. = .91 N = 17	Mean = 4.04 S.D. = 1.11 N = 17	2.53*
Spelling	Mean = 5.68 S.D. = 1.38 N = 17	Mean = 4.69 S.D. = 1.07 N = 17	2.39*
Word Study Skills	Mean = 5.45 S.D. = 1.14 N = 17	Mean = 4.02 S.D. = 1.50 N = 17	3.13**
Language	Mean = 5.18 S.D. = .77 N = 17	Mean = 4.40 S.D. = 1.04 N = 17	2.49*
Arithmetic Computation	Mean = 5.48 S.D. = .37 N = 17	Mean = 3.95 S.D. = .69 N = 17	8.07**
Arithmetic Concepts	Mean = 5.44 S.D. = .93 N = 17	Mean = 4.08 S.D. = 1.39 N = 17	3.35**
Science and Social Studies	Mean = 5.65 S.D. = 1.01 N = 17	Mean = 4.43 S.D. = .74 N = 17	4.01**

**Significant at .01 level
*Significant at .05 level

PRE-TEST/POST-TEST COMPARISON OF MEAN GRADE EQUIVALENCY SCORES FOR INTERIM CLASS -- SCHOOL A

STANFORD ACHIEVEMENT TEST

Subtest	Pre-test Grade 3	Post-test Grade 4	T-Value
Word Meaning	Mean = 2.62 S.D. = .68 N = 19	Mean = 3.63 S.D. = 1.12 N = 19	2.46**
Paragraph Meaning	Mean = 2.70 S.D. = .54 N = 19	Mean = 3.77 S.D. = 1.39 N = 19	3.13*
Spelling	Mean = 3.13 S.D. = .93 N = 19	Mean = 4.22 S.D. = 1.56 N = 19	2.62*
Word Study Skills	Mean = 2.26 S.D. = .59 N = 19	Mean = 3.24 S.D. = 1.15 N = 19	3.30**
Language	Mean = 2.58 S.D. = .48 N = 19	Mean = 3.51 S.D. = 1.33 N = 19	2.87**
Arithmetic Computation	Mean = 2.94 S.D. = .90 N = 19	Mean = 3.27 S.D. = 1.19 N = 19	.96
Arithmetic Concepts	Mean = 2.75 S.D. = .77 N = 19	Mean = 3.15 S.D. = 1.29 N = 19	1.16
Science and Social Studies	Mean = 2.97 S.D. = .79 N = 19	Mean = 3.66 S.D. = 1.08 N = 19	2.25*

**Significant at .01 level
*Significant at .05 level

PRE-TEST/POST-TEST COMPARISON OF MEAN GRADE EQUIVALENCY SCORES

FOR CONTROL CLASS -- SCHOOL A

STANFORD ACHIEVEMENT TEST

Subtest	Pre-test Grade 3	Post-test Grade 4	T-Value
Word Meaning	Mean = 2.73 S.D. = .52 N = 19	Mean = 3.58 S.D. = .55 N = 19	4.90**
Paragraph Meaning	Mean = 2.49 S.D. = .61 N = 19	Mean = 3.39 S.D. = .82 N = 19	3.85**
Spelling	Mean = 2.57 S.D. = .88 N = 19	Mean = 3.65 S.D. = .85 N = 19	3.85**
Word Study Skills	Mean = 2.69 S.D. = 1.09 N = 19	Mean = 2.82 S.D. = 1.09 N = 19	.37
Language	Mean = 2.91 S.D. = 1.03 N = 19	Mean = 3.26 S.D. = .75 N = 19	1.20
Arithmetic Computation	Mean = 3.27 S.D. = .57 N = 19	Mean = 3.99 S.D. = .76 N = 19	3.30**
Arithmetic Concepts	Mean = 2.92 S.D. = 1.10 N = 19	Mean = 3.99 S.D. = 1.39 N = 19	2.63*
Science and Social Studies	Mean = 3.40 S.D. = 1.02 N = 19	Mean = 3.91 S.D. = .60 N = 19	.77

**Significant at .01 level
*Significant at .05 level

PRE-TEST/POST-TEST COMPARISON OF MEAN GRADE EQUIVALENCY SCORES

FOR INTERIM CLASS -- SCHOOL B

STANFORD ACHIEVEMENT TEST

Subtest	Pre-test Grade 3	Post-test Grade 4	T-Value
Word Meaning	Mean = 3.08 S.D. = .49 N = 17	Mean = 6.01 S.D. = .69 N = 17	2.93**
Paragraph Meaning	Mean = 2.90 S.D. = .49 N = 17	Mean = 4.92 S.D. = .91 N = 17	7.95**
Spelling	Mean = 3.49 S.D. = .62 N = 17	Mean = 5.68 S.D. = 1.39 N = 17	5.97**
Word Study Skills	Mean = 2.64 S.D. = .49 N = 17	Mean = 5.45 S.D. = 1.14 N = 17	9.34**
Language	Mean = 3.35 S.D. = .48 N = 17	Mean = 5.18 S.D. = .78 N = 17	8.33**
Arithmetic Computation	Mean = 3.81 S.D. = .38 N = 17	Mean = 5.48 S.D. = .37 N = 17	13.04**
Arithmetic Concepts	Mean = 3.40 S.D. = .69 N = 17	Mean = 5.44 S.D. = .93 N = 17	7.27**
Science and Social Studies	Mean = 3.65 S.D. = 1.20 N = 17	Mean = 5.65 S.D. = 1.01 N = 17	5.26**

**Significant at .01 level
*Significant at .05 level

PRE-TEST/POST-TEST COMPARISON OF MEAN GRADE EQUIVALENCY SCORES

FOR CONTROL CLASS -- SCHOOL B

STANFORD ACHIEVEMENT TEST

Subtest	Pre-test Grade 3	Post-test Grade 4	T-Value
Word Meaning	Mean = 3.13 S.D. = .56 N = 17	Mean = 4.47 S.D. = 1.26 N = 17	3.83**
Paragraph Meaning	Mean = 3.18 S.D. = .64 N = 17	Mean = 4.04 S.D. = 1.11 N = 17	3.83**
Spelling	Mean = 3.63 S.D. = 1.14 N = 17	Mean = 4.69 S.D. = 1.07 N = 17	2.79**
Word Study Skills	Mean = 2.47 S.D. = 1.21 N = 17	Mean = 4.02 S.D. = 1.50 N = 17	3.32**
Language	Mean = 2.91 S.D. = .48 N = 17	Mean = 4.40 S.D. = 1.04 N = 17	5.37**
Arithmetic Computation	Mean = 3.06 S.D. = .56 N = 17	Mean = 3.95 S.D. = .69 N = 17	4.13**
Arithmetic Concepts	Mean = 3.06 S.D. = .85 N = 17	Mean = 4.08 S.D. = 1.39 N = 17	2.58*
Science and Social Studies	Mean = 3.16 S.D. = .86 N = 17	Mean = 4.43 S.D. = .74 N = 17	4.62**

**Significant at .01 level
*Significant at .05 level

COMPARISON OF INTERIM/CONTROL GROUP

RESULTS ON THE CTIS I.Q. TEST

SCHOOL A

T Test

Group 1 Interim (Grade 3) Group 2 Control (Grade 3)

N = 20	N = 19
$\Sigma X = 1890$	$\Sigma X = 1795$
$\Sigma X^2 = 179,518$	$\Sigma X^2 = 170,599$
Mean = 94.50	Mean = 94.47
$\sigma = 6.76$	$\sigma = 7.32$

Diff. = .03

T = .01

Significant ____ Not Significant X

1% ____

5% ____

Group 1 Interim (Grade 4) Group 2 Control (Grade 4)

N = 18	N = 19
$\Sigma X = 1688$	$\Sigma X = 1684$
$\Sigma X^2 = 160,580$	$\Sigma X^2 = 151,532$
Mean = 93.78	Mean = 88.63
$\sigma = 11.26$	$\sigma = 10.95$

Diff. = 5.15

T = 1.41

Significant ____ Not Significant X

1% ____

5% ____

COMPARISON OF INTERIM/CONTROL GROUP

RESULTS ON THE OTIS I.Q. TEST

SCHOOL B

T Test

Group 1 Interim (Grade 3) Group 2 Control (Grade 3)

N = 16	N = 17
$\Sigma X = 1532$	$\Sigma X = 1651$
$\Sigma X^2 = 148,008$	$\Sigma X^2 = 161,667$
Mean = 95.75	Mean = 97.12
$\sigma = 9.08$	$\sigma = 8.83$

Diff. = 1.37

T = .44

Significant _____ Not Significant X

1% _____

5% _____

Group 1 Interim (Grade 4) Group 2 Control (Grade 4)

N = 17	N = 17
$\Sigma X = 1718$	$\Sigma X = 1688$
$\Sigma X^2 = 175,330$	$\Sigma X^2 = 170,846$
Mean = 101.06	Mean = 99.29
$\sigma = 10.03$	$\sigma = 13.80$

Diff. = 1.77

T = .43

Significant _____ Not Significant X

1% _____

5% _____

PRE-TEST/POST-TEST COMPARISON OF

OTIS I.Q. RESULTS

INTERIM CLASS A

T Test

Group 1 Pre-test (Grade 3) Group 2 Post-test (Grade 4)

N = 20	N = 18
$\Sigma X = 1890$	$\Sigma X = 1688$
$\Sigma x^2 = 179.518$	$\Sigma X^2 = 160,580$
Mean = 94.50	Mean = 93.78
$\sigma = 6.76$	$\sigma = 11.26$

Diff. = .72

T = .24

Significant _____ Not Significant X

1% _____

5% _____

CONTROL CLASS A

T Test

Group 1 Pre-test (Grade 3) Group 2 Post-test (Grade 4)

N = 19	N = 19
$\Sigma X = 1795$	$\Sigma X = 1684$
$\Sigma X^2 = 170,599$	$\Sigma y^2 = 151,532$
Mean = 94.47	Mean = 88.63
$\sigma = 7.32$	$\sigma = 10.95$

Diff. = 5.84

T = 1.93

Significant _____ Not Significant X

1% _____

5% _____

PRE-TEST/POST-TEST COMPARISON OF

OTIS I.Q. RESULTS

INTERIM CLASS B

T Test

Group 1 Pre-test (Grade 3) Group 2 Post-test (Grade 4)

N = 16	N = 17
$\Sigma X = 1532$	$\Sigma X = 1718$
$\Sigma X^2 = 148,008$	$\Sigma X^2 = 175,330$
Mean = 95.75	Mean = 101.06
$\sigma = 9.08$	$\sigma = 10.03$

Diff. = 5.31

T = 1.60

Significant _____ Not Significant X

1% _____

5% _____

CONTROL CLASS B

T Test

Group 1 Pre-test (Grade 3) Group 2 Post-test (Grade 4)

N = 17	N = 17
$\Sigma X = 1651$	$\Sigma X = 1688$
$\Sigma X^2 = 161,667$	$\Sigma X^2 = 170,846$
Mean = 97.12	Mean = 99.29
$\sigma = 8.83$	$\sigma = 13.80$

Diff. = 2.17

T = .55

Significant _____ Not Significant X

1% _____

5% _____